

**Inter-Agency Flood Risk Characterization Workshop**

**February 25-27, 2014**

**USACE Institute for Water Resources, Alexandria, VA, IWR Classroom**

**Summary of Available Datasets that are Relevant to Flood Risk Characterization**

Dataset Name	Source	Flood Risk Category	Date Updated	Spatial Extent & Resolution	Format available	Access
<b>National Flood Hazard Layer</b>	FEMA	Hazard	Continuously	National; 1:12,000 scale	GIS data (raster)	Download. <a href="https://hazards.fema.gov/femaportal/NFHL/">https://hazards.fema.gov/femaportal/NFHL/</a>
The National Flood Hazard Layer (NFHL) dataset is a compilation of effective Flood Insurance Rate Map (FIRM) databases (a collection of the digital data that are used in GIS systems for creating new Flood Insurance Rate Maps) and Letters of Map Change (Letters of Map Amendment and Letters of Map Revision only) that create a seamless GIS data layer for United States and its territories.						
<b>Hazus</b>	FEMA	Consequences	February 2012	National	Windows software package	Order from FEMA MSC. <a href="http://www.fema.gov/hazus">http://www.fema.gov/hazus</a>
Hazus is a nationally applicable standardized methodology that contains models for estimating potential losses from earthquakes, floods, and hurricanes.						
<b>FEMA Disaster Declarations Library</b>	FEMA	Consequences	January 2014	National	Excel Table	Download. <a href="http://tinyurl.com/nzlfzqp">http://tinyurl.com/nzlfzqp</a>
FEMA Disaster Declarations Summary is a summarized dataset describing all federally declared disasters. This information begins with the first disaster declaration in 1953 and features all three disaster declaration types: major disaster, emergency and fire management assistance.						
<b>National Elevation Dataset</b>	USGS	Hazard	Bi-monthly	National; 1/3 arc-second and 1/9 arc-second	ArcGRID, GeoTIFF, BIL, GridFloat	Order from USGS. <a href="http://ned.usgs.gov/">http://ned.usgs.gov/</a>
The National Elevation Dataset (NED) is the primary elevation data product of the USGS. The NED is a seamless dataset with the best available raster elevation data of the conterminous United States, Alaska, Hawaii, and territorial islands. It can be used in models to estimate flood inundation extent, flood depths and other elements of flood hazard.						
<b>2006 National Land Cover Database</b>	USGS, Multi-Resolution Land Characteristics Consortium	Consequences	Every Five Years	National; 30-meter	GIS data (raster)	Download. <a href="http://www.mrlc.gov/">http://www.mrlc.gov/</a>
The National Land Cover Database (NLCD) serves as the definitive Landsat-based, 30-meter resolution, land cover database for the Nation. NLCD provides spatial reference and descriptive data for characteristics of the land surface such as thematic class (for example, urban, agriculture, and forest), percent impervious surface, and percent tree canopy cover. It can be used to estimate where people and structures are located for purposes of estimating flood exposure and damages. The 2011 NLCD is slated for release in late March of 2014.						

Dataset Name	Source	Flood Risk Category	Date Updated	Spatial Extent & Resolution	Format available	Access
<b>Watershed Boundary Dataset</b>	Natural Resources Conservation Service	Hazard	2004	National; 1:24,000 scale	GIS data (digital vector datasets)	Download. <a href="http://nhd.usgs.gov/wbd.html">http://nhd.usgs.gov/wbd.html</a>
<p>The Watershed Boundary Dataset (WBD) defines the areal extent of surface water drainage to a point, accounting for all land and surface areas. Watershed Boundaries are determined solely upon science-based hydrologic principles, not favoring any administrative boundaries or special projects, nor particular program or agency.</p>						
<b>Flood Inundation Mapping Program</b>	USGS	Hazard	Continuously	By community	Online tool	View online/download. <a href="http://water.usgs.gov/osw/flood_inundation/">http://water.usgs.gov/osw/flood_inundation/</a>
<p>The USGS Flood Inundation Mapping Program focuses its efforts at state and local levels to help communities understand flood risks and make cost-effective mitigation decisions. The flood inundation map library contains a series of sequential maps that help communicate where flooding may occur over a range of river levels. The library can be connected to real-time and forecasted river levels at USGS streamgages to help communities identify immediate risks during a flood.</p>						
<b>US Census: Demographics, Households, Income</b>	US Census	Consequences Vulnerability	2010	National; Census block	CSV/ spreadsheet	Download. <a href="http://www.census.gov/main/www/access.html">http://www.census.gov/main/www/access.html</a>
<p>The US Census provides essential data on population, demographics, households, and income for mapping and estimating the consequences of flooding.</p>						
<b>Social Vulnerability Index (SoVI) 2006-2010</b>	University of South Carolina	Vulnerability	2010	National; County-level	CSV/ spreadsheet	Download. <a href="http://webra.cas.sc.edu/hvri/products/sovi.aspx">http://webra.cas.sc.edu/hvri/products/sovi.aspx</a>
<p>The Social Vulnerability Index (SoVI®) 2006-10 measures the social vulnerability of U.S. counties to environmental hazards. The index is a comparative metric that facilitates the examination of the differences in social vulnerability among counties. Data from the American Community Survey is used in a principal components analysis to create the SoVI. In SoVI® 2006-10, seven significant components explain 72% of the variance in the data.</p>						
<b>Homeland Security Infrastructure Program (HSIP) Gold</b>	DHS	Consequences	2013	National	GIS data	Order DVDs. <a href="https://www.hifldwg.org/hsip-guest">https://www.hifldwg.org/hsip-guest</a>
<p>HSIP Gold is a unified homeland infrastructure geospatial data inventory assembled by National Geospatial Intelligence Agency in partnership with the Department of Homeland Security for common use by the Federal Homeland Security and Homeland Defense (HLS/HD) Community. It is a compilation of over 450 geospatial datasets, characterizing domestic infrastructure and base map features, which have been assembled from a variety of Federal agencies and commercial sources. Access is limited to federal government members, National Guard Forces, and to States with approved Presidential Disaster or Emergency Declarations to support the HD, HLS and NP – PPMR&amp;R missions.</p>						



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<b>US Regional Economic Forecasts &amp; Analysis</b>	IHS Global Insight	Consequences	Yearly	National; County-level	CSV/ spreadsheet	<a href="http://tinyurl.com/mkdhnwud">http://tinyurl.com/mkdhnwud</a>
Both IHS Global Insight and Woods and Poole Economics produce forecasts of economic trends for U.S. counties. Both companies' forecasts go out 30 years and are updated regularly. IHS's forecasts cover over 30 variables including income, wages, and employment for 11 major industry categories. These forecasts can be used to estimate potential future flood consequences.						
<b>County Economic Forecasts to 2040</b>	Woods and Poole	Consequences	Yearly	National; County-level	CSV/ spreadsheet	CD-ROM. <a href="http://www.woodsandpoole.com/index.php">http://www.woodsandpoole.com/index.php</a>
Both IHS Global Insight and Woods and Poole Economics produce forecasts of economic trends for U.S. counties. Both companies' forecasts go out 30 years and are updated regularly. The forecasts from Woods and Poole are similar to IHS's forecasts, which cover over 30 variables including income, wages, and employment for 11 major industry categories. These forecasts can be used to estimate potential future flood consequences.						
<b>County-level economic activity data</b>	IMPLAN	Consequences	2012	National; County-level		<a href="http://implan.com/">http://implan.com/</a>
IMPLAN data can be used to calculate various measures of economic activity at the county level, including GDP, total output, and employee compensation.						